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53. (Amended) [A] An unwarped, laminated composite wood product made by a method comprising the steps of:

- (a) providing a rigid substrate layer having two substantially flat sides;
- (b) providing, on each of said sides of the substrate layer, a sheet layer that is substantially saturated with a thermosetting resin;
- (c) providing, on at least one of said sheet layers, a veneer layer to form a layered structure consisting essentially of said substrate layer, said sheet layers and said veneer layer;
- (d) providing the layered structure of step (c) in a pressing apparatus;

and

- (e) subjecting the layered structure of step (d) to elevated temperature and pressure in said pressing apparatus for a period sufficient to cure said resin at said temperature and pressure, said pressing apparatus comprising a first platen and a second platen, said first platen operating at a temperature different from an operating temperature of said second platen,

to provide an unwarped, laminated composite wood product.

#### REMARKS

This paper is being presented in connection with a request for continued examination under 37 C.F.R. § 1.114, and follows up a notice of appeal filed on August 28, 2000, in response to the final official action of June 24, 2000. Submitted herewith are a "Request for Continued Examination (RCE) Transmittal," a "Petition Under 37 C.F.R. § 1.136(a)," and checks to cover the fees for the request and petition. The applicant requests that the finality of the June 24, 2000, official action be withdrawn. Furthermore, the applicant requests consideration of the following remarks, and reconsideration and withdrawal of the rejections.

This paper is timely filed, as it is accompanied by a petition for an extension of time to file in the first month, and the required extension fee.

#### **I. Introduction**

Claims 14 and 17-54 are pending.

Claims 37-42, 48, 53, and 54 were rejected under 35 U.S.C. § 102(b) as being anticipated by alleged admissions in the application.

Claims 46 and 47 were rejected under 35 U.S.C. § 103(a) as being obvious over the alleged admissions and further in view of Guyette U.S. Patent No. 5,425,986 (hereafter the "Guyette patent").

Claim 49 was rejected under § 103(a) as being obvious over the alleged admissions and further in view of Hartman *et al.* U.S. Patent No. 4,239,577 (hereafter the "Hartman patent").

Claims 43-45 were rejected under § 103(a) as being obvious over the alleged admissions and further in view of Brooker *et al.* U.S. Patent No. 5,723,221 (hereafter the "Brooker patent").

Claims 14, 17, 18, 26-30, 37-42, and 50-54 were rejected under § 103(a) as being obvious over McClain U.S. Patent No. 1,299,747 (hereafter the "McClain patent") in view of the alleged admissions and Reiss U.S. Patent No. 3,502,533 (hereafter the "Reiss patent").

Claims 24, 36, and 48 have been rejected under § 103(a) as being obvious over the McClain patent in view of the alleged admissions and the Reiss patent as applied to claims 14, 17, 18, 26-30, 37-42, and 50-54.

Claims 19-21, 25, 31-33, 43-45, and 49 were rejected under § 103(a) as being obvious over the McClain patent in view of the alleged admissions and the Reiss patent as applied to claims 14, 17, 18, 26-30, 37-42, and 50-54, and further in view of the Hartman patent.

Claims 22, 23, 34, 35, 46, and 47 have been rejected under § 103(a) as being obvious over the over the McClain patent in view of the alleged admissions and the Reiss patent as applied to claims 14, 17, 18, 26-30, 37-42, and 50-54, and further in view of the Guyette patent.

No basis for a rejection of claim 19 has been provided. In response to the first official action (dated January 28, 2000), the applicant noted that the action provided no basis for a rejection of claim 19, and solicited an indication that the claim was allowable or that any further action be non-final. In the second (and final) official action, the examiner

summarily dismissed the failure to provide a basis for a rejection of claim 19 on the ground that "anyone who read the rejection would have immediately noticed that the claims addressed in paragraph 8 [of the first official action]" included claim 19. The applicant should not be penalized for deficiencies in rendering in an official action. Accordingly, the finality of the June 24, 2000, official action was improper, and should be withdrawn.

## **II. The Subject Matter of the Pending Claims 14 and 17-54**

The pending claims are directed to an unwarped, laminated composite wood product not disclosed in, taught by, or suggested by the prior art. Specifically, the applicant has determined that warping of layered composite wood products containing a veneer sheet can be minimized or eliminated by disposing a veneer layer on *only one resin-saturated sheet layer*. Alternatively or additionally, the warping can be minimized or eliminated by consolidating in a pressing apparatus a layered structure comprising a rigid substrate layer having two substantially flat sides, a resin-saturated sheet layer disposed on each of said sides, and a veneer layer disposed on *only one of said sheet layers*, wherein the pressing apparatus includes a first platen operating at an elevated temperature different from an elevated operating temperature of a second platen. The elevated temperature and pressure are provided for a time sufficient to cure the resin. The applicant's discovery is a marked advance over prior products which were prepared by cumbersome balancing techniques (*i.e.*, utilization of veneer layers on both sides of the substrate, or alternatively an unnecessary heavy duty backer paper) and still did not possess the inventive characteristics of the products recited in the claims of this application.

The laminated composite wood product recited in claim 37 is patentable over the prior art of record because *inter alia* it is prepared utilizing different press platen temperatures. This, in turn, results in an unwarped product—a product which cannot be made according to the prior art without the use of cumbersome balancing techniques (*i.e.*, utilization of veneer layers on both sides of the substrate, or alternatively a heavy duty backer paper). Claims 38-50 which depend from claim 37 also are patentable as they further limit the scope of patentable claim 37. *See In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988).

Claim 51 is patentable over the prior art of record because *inter alia* the features of (a) different press platen temperatures and (b) the presence of a veneer layer on only one resin-saturated sheet layer are neither disclosed nor taught by any prior art

reference. These features are useful in preventing warpage and/or ensuring minimum warpage.

Claim 53 is patentable over the prior art of record because *inter alia* the feature of different press platen temperatures is neither disclosed nor taught by any prior art reference. As previously noted, use of different press platen temperatures results in an unwarped product—a product which cannot be made according to the prior art without the use of cumbersome balancing techniques (*i.e.*, utilization of veneer layers on both sides of the substrate, or alternatively a heavy duty backer paper).

### **III. Alleged Admissions in the Application**

The rejection of claims 37-42, 48, 53, and 54 under 35 U.S.C. § 102(b) as being anticipated by an alleged admission in the application is traversed.

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). “[I]t is incumbent upon the examiner to identify wherein each and every facet of the claimed invention is disclosed in the applied reference.” *Lindemann Maschinenfabrik GmbH v. American Hoist and Derrick*, 221 U.S.P.Q. 481, 485 (Fed. Cir. 1984). Furthermore, the law mandates that a reference must be considered for all that it teaches, not just some part thereof that supports a particular position. *In re Hedges*, 228 U.S.P.Q. 685, 687 (Fed. Cir. 1986).

The applicant does not dispute the alleged admissions, set forth in *complete detail* in the “Background of the Invention” section of the application. However, citations to passages in the “Background of the Invention” section of the application in support of the § 102(b) rejection fail to identify each and every element set forth in the pending claims. *Lindemann*, 221 U.S.P.Q. at 485. Furthermore and, more importantly, the official action citations to the passages in the “Background of the Invention” section of the application ignore important details relevant to the cited text. The examiner cannot simply pick and choose those portions of a reference (the background portion of the application itself in this case) which support his position and ignore those portions that do not. *In re Hedges*, 228 U.S.P.Q. at 687. It is submitted that the disclosure in the “Background of the Invention”

section of this application does not anticipate claims 37-42, 48, 53, and 54. Accordingly, reconsideration and withdrawal of the § 102(b) rejection is solicited.

The official action cites to page 1, lines 13-15 of the specification for the position that layered, composite wood structures having an inner core substrate and veneer layers affixed to one or more major planar surfaces of the substrate are well-known in the art. The applicant does not dispute this statement. However, the action fails to consider other highly-relevant passages in this portion of the application which establish that such structures “may experience *excessive* warpage toward the venner side” (emphasis added). See page 2, lines 24-27 of the specification. As a result of this warpage, the specification teaches that, a “[b]alancing veneer or heavy duty backer paper have been used in the past to balance, or offset, the wood warping problem.” See page 3, lines 9-11 of the specification. The specification continues:

In this case, where a veneer layer is placed on both faces of a substrate, any tendency of the wood materials to warp effectively cancel each other out. However, the use of this additional veneer as well as board production is unnecessarily expensive where a second veneer serves no cosmetic purpose. Furthermore a second veneer is often not desired in certain applications, such as store display boxes (e.g., jewelry display cabinets).

Thus, it would be desirable to have a cost-efficient process for making a laminated wood structure wherein the amount of warpage is drastically reduced, if not eliminated altogether.

Specification page 3, lines 11-23.

When the “Background of the Invention” section of the application is read in full, a person skilled in the art understands that a layered, composite wood structure having an inner core substrate and a veneer layer affixed to only one major planar surface of the substrate is warped toward its veneer side unless a balancing paper or heavy duty backer paper are employed to balance or offset the warping. Furthermore, a person skilled in the art having read the “Background of the Invention” section of this application would understand that un-warped, layered, composite wood structure having an inner core substrate and a veneer layer affixed to only one major planar surface of the substrate and having no balancing veneer or backer paper **does not exist in the prior art**. Such a reading of this section of the application is mandated by the U.S. Court of Appeals for the Federal Circuit. *In re Hedges*, 228 U.S.P.Q. at 687.

To make this distinction abundantly clear, each of independent claims 14, 17, 37, 51, and 53 has been amended to recite an *unwarped*, laminated wood composite product.

A number of other elements of the independent claims also are not found in the alleged admissions. Specifically, the independent claims recite a “resin-saturated sheet layer,” which is not expressly or inherently described in the alleged admissions. Furthermore, the independent claims recite that a resin-saturated sheet layer is disposed on each of two substantially flat sides of a rigid substrate layer. This feature also is not expressly or inherently described in the alleged admissions. Still further, the independent claims recite the presence of a veneer layer on only one of the resin-saturated sheet layers—yet another feature not expressly or inherently described in the alleged admissions. Still further, the alleged admissions do not expressly or inherently describe the layered structure recited in the independent claims.

Resin-coated sheet layers and resin-saturated sheet layers are not equivalent. In fact, the specification at, for example, page 2, lines 24-27, expressly teaches against the use of resin-coated sheet layers, as layered wood composite structures made according to conventional compression molding press processes (*e.g.*, those utilizing single resin-coated paper layers) undesirably experience excessive warping toward the veneer side. As stated in the specification at, for example, page 8, lines 14-22, an important feature of the invention is the utilization of resin-saturated or resin-impregnated (as opposed to resin-coated) sheets on both top and bottom surfaces of the substrate material to ensure minimal warping of the substrate. Distinctions between (a) resin-saturated or resin-impregnated sheets and (b) resin-coated sheets can be found in the specification at, for example, page 6, line 16 to page 7, line 7.

In sum, because the alleged admissions fail to teach or suggest the product as recited in the various independent claims (*i.e.*, claims 14, 17, 37, 51, and 53), the alleged admissions do not anticipate claims 37-42, 48, 53, and 54. Therefore, reconsideration and withdrawal of the § 102(b) rejection are requested.

#### **IV. The Rejections under 35 U.S.C. § 103(a) Are Traversed**

As a preliminary matter, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the

references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the teachings of a plurality of references. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all of the claim limitations. The teaching or suggestion to make the claimed invention and the reasonable expectation of success must both be found in the prior art, and not based on the applicants' own disclosure. *In re Vaeck*, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991).

The examiner bears the burden of establishing a *prima facie* case of obviousness and "can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references." *In re Fine*, 5 U.S.P.Q.2d at 1598. To support a conclusion that a claimed combination is obvious, either: (a) the references must expressly or impliedly suggest the claimed combination to one of ordinary skill in the art, or (b) the examiner must present a convincing line of reasoning as to why a person of ordinary skill in the art would have found the claimed invention to have been obvious in light of the teachings of the references. *Ex parte Clapp*, 227 U.S.P.Q. 972, 973 (Bd. Pat. App. & Inter. 1985). Where the teachings of various references conflict, the examiner must weigh the power of each reference to suggest solutions to one of ordinary skill in the art, considering the degree to which one reference might accurately discredit another. *In re Young*, 18 U.S.P.Q.2d 1089 (Fed. Cir. 1991).

While the references may, under some theory, disclose each of the features recited in the claims, that alone is not sufficient to defeat patentability of the claimed invention. "[E]very element of a claimed invention may often be found in the prior art." *In re Werner Kotzab*, 55 U.S.P.Q.2d 1313, 1316 (Fed. Cir. 2000); *see also In re Rouffet*, 47 U.S.P.Q.2d 1453, 1457 (Fed. Cir. 1998). Identification in the prior art of each individual part of the claimed invention is not sufficient to defeat patentability of the claimed invention, rather there must be some motivation, suggestion, or teaching of the desirability of making the specific combination that was made by the applicant. *In re Werner Kotzab*, 55 U.S.P.Q.2d at 1316; *see also In re Dance*, 48 U.S.P.Q.2d 1635, 1637 (Fed. Cir. 1998); *In re Gordon*, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984).

**A. Rejection of Claims 46 and 47 Are Traversed**

The rejection of claims 46 and 47 under § 103(a) as being obvious over the alleged admissions as applied to claims 37-42, 48, 53, and 54, and further in view of the Guyette patent is traversed.

The remarks set forth above addressing the alleged admissions in the “Background of the Invention” section of the application are incorporated herein by reference. Briefly, however, the alleged admissions teach that a layered, composite wood structure having an inner core substrate and a veneer layer affixed to only one major planar surface of the substrate is warped toward its veneer side unless a balancing paper or heavy duty backer paper are employed to balance or offset the warping. Nothing in the Guyette patent suggests discarding the balancing paper or heavy duty backer paper and nevertheless obtaining an unwarped, layered composite wood structure.

Neither the alleged admissions nor the Guyette patent recognizes that lamination warping can be prevented without cumbersome balancing techniques (*i.e.*, utilization of veneer layers on both sides of the substrate, or alternatively an unnecessary heavy duty backer paper) and/or by maintaining different press platen temperatures. Furthermore, the Guyette patent does not disclose or suggest the presence of a veneer layer disposed on only one of the resin-saturated sheet layers as recited in each of claims 46 and 47. Still further, the Guyette patent does not disclose or suggest the combination of the various layers of rigid substrate, resin-saturated sheets, and veneer with the further limitations of the particular type of resin (claim 46) and resin-saturated sheets (claim 47). The Guyette patent is not even relevant to the claims as it is directed to a high-pressure product (*i.e.*, 500 to 2500 psi) with a pressing time of 5 minutes to 125 minutes. Absent an express or implied teaching or suggestion of each and every limitation of claims 46 and 47, these claims are not *prima facie* obvious.

**B. Rejection of Claim 49 Is Traversed**

The rejection of claim 49 under § 103(a) as being obvious over the alleged admissions as applied to claims 37-42, 48, 53, and 54, and further in view of the Hartman patent is traversed.

The remarks set forth above addressing the alleged admissions in the “Background of the Invention” section of the application are incorporated herein by



reference. Briefly, however, the alleged admissions teach that a layered, composite wood structure having an inner core substrate and a veneer layer affixed to only one major planar surface of the substrate is warped toward its veneer side unless a balancing paper or heavy duty backer paper are employed to balance or offset the warping. Nothing in the Hartman patent suggests discarding the balancing paper or heavy duty backer paper and nevertheless obtaining an unwarped, layered composite wood structure.

Neither the alleged admissions nor the Hartman patent recognizes that lamination warping can be prevented without cumbersome balancing techniques (*i.e.*, utilization of veneer layers on both sides of the substrate, or alternatively an unnecessary heavy duty backer paper). Furthermore, none of the applied references, including the Hartman patent, disclose or suggest the presence of a veneer layer disposed on only one of the resin-saturated sheet layers as recited in claims 49. To the contrary, the Hartman patent at, for example, column 3, lines 10-13, requires the presence of two veneer layers. Veneer layers typically provide improved aesthetic qualities to a wood product. However, the additional veneer layer does not serve such a purpose where the product is to be used as a countertop or in a cabinet, since the additional veneer layer will not be visible—its purpose is merely intended to provide a measure of balance to a layered structure during consolidation. Neither the Hartman patent nor the other applied prior art suggest that a veneer sheet should be placed on only one of the resin-saturated sheet layers and that doing so will nevertheless result in a product that does not exhibit excessive warpage. Absent an express or implied teaching or suggestion of each and every limitation of independent claim 37 and claim 49, dependent therefrom, claim 49 is not *prima facie* obvious.

#### **C. Rejection of Claims 43-45 Are Traversed**

The rejection of claims 43-45 were rejected under § 103(a) as being obvious over the alleged admissions as applied to claims 37-42, 48, 53, and 54, and further in view of the Brooker patent is traversed.

The remarks set forth above addressing the alleged admissions in the “Background of the Invention” section of the application are incorporated herein by reference. Briefly, however, the alleged admissions teach that a layered, composite wood structure having an inner core substrate and a veneer layer affixed to only one major planar surface of the substrate is warped toward its veneer side unless a balancing paper or heavy duty backer paper are employed to balance or offset the warping. Nothing in the Brooker

patent suggests discarding the balancing paper or heavy duty backer paper and nevertheless obtaining an unwarped, layered composite wood structure.

Neither the alleged admissions nor the Brooker patent recognizes that lamination warping can be prevented without cumbersome balancing techniques. Furthermore, none of the applied references, including the Brooker patent, disclose or suggest the presence of a veneer layer disposed on only one of the resin-saturated sheet layers as recited in independent claim 17 and claims 20-22, dependent therefrom. To the contrary, the Brooker patent at, for example, column 2, lines 56-60, teaches the presence of a single ply of solid color or print paper on each surface of the core board to balance the board and prevent the laminate from warping during consolidation. Neither the Brooker patent nor the other applied prior art suggest that a veneer sheet should be placed on only one of the resin-saturated sheet layers and that doing so will nevertheless result in a product that does not exhibit excessive warpage. Further, neither the Brooker patent nor the alleged admissions disclose or suggest the combination of the various layers of rigid substrate, resin-saturated sheets, and veneer with the further limitations of the particular type of resin (claim 20-22). Absent an express or implied teaching or suggestion of each and every limitation of independent claim 17 and claims 20-22, dependent therefrom, claims 20-22 are not *prima facie* obvious.

**D. Rejection of Claims 14, 17, 18, 26-30, 37-42, and 50-54 Are Traversed**

The rejection of claims 14, 17, 18, 26-30, 37-42, and 50-54 were rejected under § 103(a) as being obvious over the McClain patent in view of the alleged admissions and the Reiss patent is traversed.

The remarks set forth above addressing the alleged admissions in the “Background of the Invention” section of the application are incorporated herein by reference. Briefly, however, the alleged admissions teach that a layered, composite wood structure having an inner core substrate and a veneer layer affixed to only one major planar surface of the substrate is warped toward its veneer side unless a balancing paper or heavy duty backer paper are employed to balance or offset the warping. Nothing in the McClain or Reiss patents suggest discarding the balancing paper or heavy duty backer paper and nevertheless obtaining an unwarped, layered composite wood structure. Because these features are not disclosed in the prior art, no *prima facie* case of obviousness can be made

with respect to each of the independent claims 14, 17, 37, 51 and 53, and the claims dependent therefrom.

**E. Rejection of Claims 24, 36, and 48 Are Traversed**

The rejection of claims 24, 36, and 48 under § 103(a) as being obvious over the McClain patent in view of the alleged admissions and the Reiss patent as applied to claims 14, 17, 18, 26-30, 37-42, and 50-54 is traversed.

The remarks set forth above addressing the alleged admissions in the “Background of the Invention” section of the application are incorporated herein by reference. Briefly, however, the alleged admissions teach that a layered, composite wood structure having an inner core substrate and a veneer layer affixed to only one major planar surface of the substrate is warped toward its veneer side unless a balancing paper or heavy duty backer paper are employed to balance or offset the warping. Nothing in the McClain or Reiss patents suggest discarding the balancing paper or heavy duty backer paper and nevertheless obtaining an unwarped, layered composite wood structure. Because these features are not disclosed in the prior art, no *prima facie* case of obviousness can be made with respect to claims 24, 36, and 48.

**F. Rejection of Claims 19-21, 25, 31-33, 43-45, and 49 Are Traversed**

The rejection of claims 19-21, 25, 31-33, 43-45, and 49 under § 103(a) as being obvious over the McClain patent in view of the alleged admissions and the Reiss patent as applied to claims 14, 17, 18, 26-30, 37-42, and 50-54, and further in view of the Hartman patent is traversed.

The remarks set forth above addressing the alleged admissions in the “Background of the Invention” section of the application are incorporated herein by reference. Briefly, however, the alleged admissions teach that a layered, composite wood structure having an inner core substrate and a veneer layer affixed to only one major planar surface of the substrate is warped toward its veneer side unless a balancing paper or heavy duty backer paper are employed to balance or offset the warping. Nothing in the McClain or Hartman patents suggest discarding the balancing paper or heavy duty backer paper and nevertheless obtaining an unwarped, layered composite wood structure. Because these features are not disclosed in the prior art, no *prima facie* case of obviousness can be made with respect to claims 19-21, 25, 31-33, 43-45, and 49.

**G. Rejection of Claims 22, 23, 34, 35, 46, and 47 Are Traversed**

The rejection of claims 22, 23, 34, 35, 46, and 47 under § 103(a) as being obvious over the over the McClain patent in view of the alleged admissions and the Reiss patent as applied to claims 14, 17, 18, 26-30, 37-42, and 50-54, and further in view of the Guyette patent is traversed.

The remarks set forth above addressing the alleged admissions in the “Background of the Invention” section of the application are incorporated herein by reference. Briefly, however, the alleged admissions teach that a layered, composite wood structure having an inner core substrate and a veneer layer affixed to only one major planar surface of the substrate is warped toward its veneer side unless a balancing paper or heavy duty backer paper are employed to balance or offset the warping. Nothing in the McClain, Reiss, or Guyette patents suggest discarding the balancing paper or heavy duty backer paper and nevertheless obtaining an unwarped, layered composite wood structure. Because these features are not disclosed in the prior art, no *prima facie* case of obviousness can be made with respect to claims 22, 23, 34, 35, 46, and 47.

In view of the foregoing sub-paragraphs A-G, it is submitted that because the applied prior art does not disclose either expressly or inherently each an every limitation of the claimed invention as recited in independent claims 14, 17, 37, 51, and 53 (and claims dependent therefrom), that no *prima facie* case of obviousness exists. Accordingly, reconsideration and withdrawal all of the § 103(a) rejections are requested.

**CONCLUSION**

In summary, the applicant respectfully requests entry of the amendments to claims 14, 17, 37, 51, and 53, reconsideration and withdrawal of the rejections, and allowance of all pending claims 14 and 17-54.

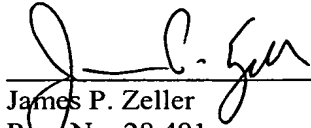
Should the examiner wish to discuss the foregoing, or any matter of form or procedure in an effort to advance this application to allowance, he is urged to telephone the undersigned attorney at the indicated number.

Respectfully submitted,

MARSHALL, O'TOOLE, GERSTEIN,  
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